

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 03/083851 A1(51) International Patent Classification⁷: G11B 7/24, 7/00

(21) International Application Number: PCT/IB03/01290

(22) International Filing Date: 1 April 2003 (01.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02076287.8 2 April 2002 (02.04.2002) EP
02080276.5 13 December 2002 (13.12.2002) EP

(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): VAN DEN OETE-LAAR, Ronald, J., A. [NL/NL]; c/o Prof. Holstlaan 6,

NL-5656 AA Eindhoven (NL). MARTENS, Hubert, C., F. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

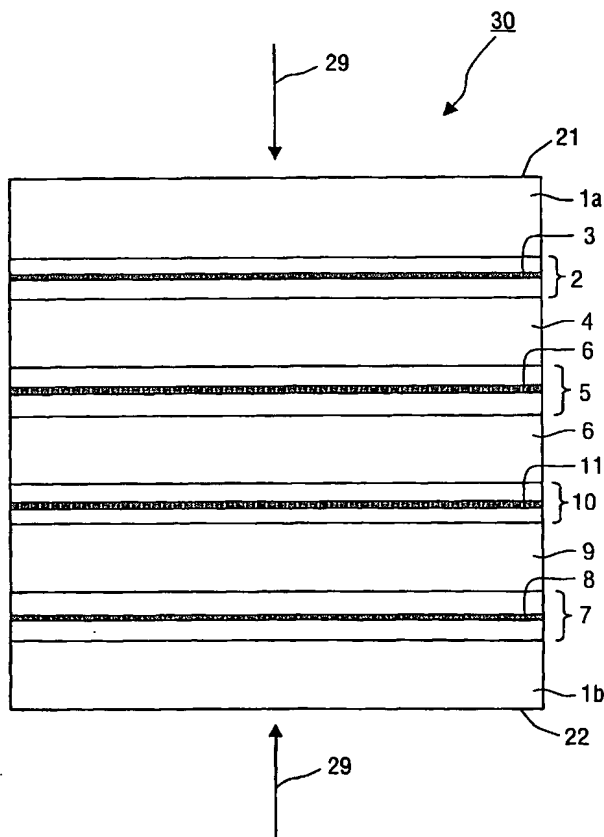
(74) Agent: DEGUELLE, Wilhelmus, H., G.; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: DUAL STACK OPTICAL DATA STORAGE MEDIUM



(57) Abstract: A dual stack optical data storage medium (30) for recording and reading by means of a focused radiation beam (29) is described. The beam enters the medium (30) through a first radiation beam entrance face (21). The medium has at least a first substrate (1a) with on at least one side of the first substrate (1a) a first layer stack (2), comprising a first information layer (3), a second layer stack (5), comprising a second information layer (6) and a first transparent spacer layer (4) between the first layer stack (2) and the second layer stack. The first layer stack (2) is present at a position closer to the first radiation beam entrance face (21) than the second layer stack (5). The first information layer (3) is one selected from the group of types consisting of a read only layer and a write once layer, and 10 the second information layer (6) is one selected from the group of types consisting of a read only layer, a write once layer and a rewritable layer. The type of the first information layer (3) is different from the type of the second information layer (6). Compatibility of the medium with read only standards is achieved while the advantages of writability and erasability are maintained. Double sided versions of the medium are also described having a 15 third and fourth layer stack (7, 10).



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*